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A critical assessment of Murray Sidman's approach to coercion

Uma avaliação crítica da abordagem de Murray Sidman sobre coerção

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Abstract

Murray Sidman's *Coercion and its fallout* (1989) is a classic on the behaviorist perspective to social issues. The book provided an operational approach to complex behavioral phenomena, paving the way for behavior analysts to address a wide range of human affairs. Nevertheless, the equivalence established by Sidman between coercion and the use of punishment and negative reinforcement (i.e., aversive control) is tricky, given that the very idea of aversive control is a matter of controversy to this day. Therefore, although innovative, Sidman's approach to coercion is also problematic, and demands reassessment. This article has three goals: 1) to present a short summary of Sidman's approach to coercion, 2) to evaluate the problems with such an approach, and 3) to comment on an alternative approach to coercion in behavior analysis. Although critical of Sidman's approach to coercion, we are aligned with his remarks on the self-correcting, ever-evolving character of scientific research – which is precisely why we argue for his approach to be reassessed from a critical viewpoint.

Keywords: Coercion, aversive control, punishment, Murray Sidman, social issues.

Resumo

"Coerção e suas implicações" (1989), de Murray Sidman, é um clássico da perspectiva behaviorista sobre questões sociais. O livro forneceu uma abordagem operacional para fenômenos comportamentais complexos, abrindo caminho para que analistas do comportamento tratassem uma ampla gama de problemas humanos. No entanto, a equivalência estabelecida por Sidman entre coerção e o uso de punição e reforço negativo (i.e., controle aversivo) é duvidosa, visto que a própria ideia de controle aversivo é controversa até os dias de hoje. Portanto, embora inovadora, a abordagem de Sidman à coerção também é problemática e demanda uma reavaliação. Este artigo tem três objetivos: 1) apresentar um breve resumo da abordagem de Sidman sobre coerção, 2) avaliar os problemas com tal abordagem e 3) comentar sobre uma abordagem alternativa à coerção na análise do comportamento. Embora críticos da abordagem de Sidman sobre coerção, estamos alinhados com suas observações sobre o caráter autocorretivo e em constante evolução da pesquisa científica – e é precisamente por isso que defendemos que sua abordagem seja reavaliada de um ponto de vista crítico.

Palavras-chave: Coerção, controle aversivo, punição, Murray Sidman, questões sociais.

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As a field of empirical and theoretical research, behavior analysis has traditionally focused on the study of individual behavior. Although the standard explanatory model of such science (Skinner, 1981) involves three levels of selection by consequences (phylogenetic, ontogenetic and cultural), historically, its main emphasis has been on the ontogenetic level (Baum, 2017). Only in recent decades have cultural issues, which encompasses social behavior of interacting human individuals, started to be systematically examined from this perspective. Murray Sidman (1923-2019), primarily known for his studies on avoidance and stimulus equivalence, as well as for his remarks on the tactics of scientific research, also devoted himself to theoretical analyses of cultural phenomena, especially those involving coercive relations. In addition to his excellence as a researcher, Sidman was a politically engaged scholar – a scientist concerned with the social dilemmas of his time (McIlvane et al., 2021; Sidman, 2021).

However, addressing the issue of coercion from a radical behaviorist perspective may be a challenging task depending on the audience to which one is talking. Since the notion of free will is so entangled in popular culture, the statement that all behavior is controlled by environmental contingencies often lead to a stigma of the behavior analyst as a scientist eager to coerce people in order to achieve his goals. Such a stigma became particularly prominent when contingencies as those of punishment and negative reinforcement were involved, in practices traditionally deemed "aversive control".

Misuses of behavior-analytic science were one of the main concerns addressed in Sidman's work. He was at the forefront in experimentally demonstrating some of the assumed by-products of aversive control (Sidman, 1958), as well as a vocal critic of the use of aversive techniques in applied settings (Sidman, 1977). Addressing a discussion about whether aversive techniques could be a viable alternative for behavior therapists, he was categorical: "Even a single ethically justified application of aversive control may, then, lead to the widespread application of such control without appropriate justification" (Sidman, 1977, p. 128). Prior to this remark, he questioned whether those willing to resort to aversive techniques were aware of these techniques' effects upon themselves, gradually shaping the favoring of aversive over other kinds of behavioral control.

Sidman's positions about these topics finally were compiled and elaborated in *Coercion and its fallout*, published in 1989. From theoretical considerations to the discussion of empirical findings, Sidman (1989) outlined paths for interpreting social interactions of different kinds. In this book, Sidman's social concern about the use of behavior-analytic science in the pursuit of a better world is evident and well-aligned with Skinner's (1971/1973) prescriptive ethical statements for positive reinforcement and against aversive control. Sidman's advocacy for the use of behavioral technology to counter coercion and to foster social change also finds parallel in recent philosophical discussions on the role of values and the ethical fallouts of science (e.g., Lacey, 2018).

Despite the merits of such engagement, *Coercion and its fallout* encompasses conceptual problems that need to be addressed. Its central weakness is the equivalence it established between coercion and aversive control. As we shall argue henceforth, such equivalence is tricky, not only because the concept of aversive control and its diametric opposition to positive reinforcement is a matter of controversy (Hineline, 1984, Hunziker, 2018, Nevin & Mandell, 2017), but mainly because such equivalence does not stand in several circumstances. That is, there may be relations traditionally deemed "aversive" that are not coercive, as well as coercive relations produced by contingencies traditionally considered nonaversive (i.e., positive reinforcement).

As much as it is important for behavior analyst to consider coercive phenomena as research subject, the analysis of coercion must go beyond its simplistic identification with aversive control – which implies that Sidman's approach to coercion demands a critical assessment. Considering this, the goals of this article are 1) to present a short summary of Sidman's approach to coercion, 2) to evaluate it critically, exploring its main flaws, and 3) to comment on an alternative approach to coercion in behavior analysis.

Sidman's approach to coercion

Following an opening chapter on the pervasiveness of coercive relations in society at large, Sidman's (1989) *Coercion and its fallout* introduced a conceptual framework for coercion by distinguishing it from the notion of *behavioral control*. Control, in its technical meaning, is not to be confused with coercion, conceived by Sidman (1989) as a type of inadequate, socially undesirable form of control that breeds and maintains inequities and injustices. Whereas control is inevitable (as it is inherent to behavioral relations), Sidman argued that coercion (i.e., the misuse of behavioral control) could and should be abolished. His main concerns involved the unwanted side effects and harmful byproducts of aversive procedures – even though the empirical grounds for his suppositions have already been contested (Fontes & Shahan, 2021).

For Sidman (1989), those who criticize behavior analysis for supposedly being a science that vindicates the use of coercive procedures fail to recognize that it would be precisely the one science able to demonstrate both the ineffectiveness and the unwanted byproducts of such procedures. Widespread resort to coercion would be the reason behind the naive, simpleminded equating of coercion and control: "The bad press is a direct outcome of the prevalence of coercive control in our society. Because coercion is so general, most people take 'control' and 'coercion' to mean the same thing" (Sidman, 1989, p. 25). To this latter point, Sidman (1989) defined coercion and its distinction from control as follows:

> Broadly speaking, there are three kinds of controlling relations between conduct and consequences: Positive reinforcement, negative reinforcement, and punishment. Control by positive reinforcement is noncoercive; coercion enters the picture when our actions are controlled by *negative reinforcement* or *punishment*. (pp. 31-32, italics added)[1]

Although restricting the scope of coercion to two kinds of operant relations, Sidman (1989) also wondered whether socially imposed forms of *deprivation* could be deemed coercive. However, if this were the case, could not certain forms of control by positive reinforcement (e.g., those requiring socially imposed deprivation of positive reinforcers) also be considered coercive? Sidman (1989) did acknowledge a coercive factor in imposed deprivation. Still, the interpretation provided by him about such circumstances keeps positive reinforcement out of the picture:

> Another misuse of positive reinforcement is *deliberately to create the kinds of deprivations that make reinforcers effective*: Prisoners, first placed in solitary confinement, are then permitted social contacts as reinforcement for docility; first starved, they can then get food in return for subservience. Freedom and food look like positive reinforcers, but when they are contingent on the cessation of artificially imposed deprivations, *their effectiveness is a product of negative reinforcement; they become instruments of coercion.* (p. 41, italics added)

Therefrom, Sidman (1989) proceeded to a behavior-analytic interpretation of different sorts of coercive phenomena, all of which involved punishment and negative reinforcement. He provided tangible examples and comments on how escape and avoidance contingencies are trivial in society, in a translational reasoning that elucidates the analogy between laboratory experiments and everyday life. Throughout the book, Sidman (1989) provided an exhaustive examination of the adverse fallouts of coercion and advocated for positive reinforcement as the only alternative method for ethically acceptable behavioral control.

Perhaps the main virtues of Sidman's (1989) work are to be noted in his efforts to counter the stigma of behaviorists as apologists of coercion and to promote the potential of "noncoercive" alternatives, positive reinforcement being the tool on which he more optimistically bets. As he stated elsewhere some years later, "behavior analysis is a rich source of unique and successful principles and methods for countering our society's tendency to apply coercion as the general solution to social problems. Behavior analysts have an obligation, not to follow but to lead" (Sidman, 1993, p. 55). Nevertheless, as stimulating as it may seem, Sidman's approach to coercion has problems of its own, as discussed below.

Problems with Sidman's approach to coercion

The main weakness in Sidman's approach to coercion is his conflation of coercion and aversive control, in which positive reinforcement as a possible source of coercion is excluded. Either because of conceptual problems or assumptions already challenged by experimental data, Sidman's approach is troublesome for several reasons.

First, one must consider the redundant character of Sidman's viewpoint: if coercion is to be identified with aversive control, what would be the advantages of adopting a new term? For the sake of parsimony, why not simply stick to the expression "aversive control" when referring to coercive relations? To this line of questioning, one may argue that Sidman's (1989) effort would be simply to translate an ordinary term to behavior-analytic vocabulary, which could be a justifiable effort by itself. Even so, a doubt would persist concerning the role of positive reinforcement in enabling coercive relations (as in the case of imposed deprivation of positive reinforcers) – a doubt that gives rise to a second problem.

This second problem concerns Sidman's interpretation of situations involving imposed deprivation and their implication for the understanding of the coercive potential of positive reinforcement. If Sidman's (1989) reasoning about conditions of imposed deprivation of positive reinforcers is correct, near all experiments involving positive

[1] It is worth noting that, in this specific excerpt, Sidman (1989) was not distinguishing between the two kinds of punishment, which is why he refers to *three* instead of *four* controlling relations, which is the standard when it comes to operant relations.

reinforcement (which so frequently *requires* imposed deprivation) would demand rectification: they must come to be conceived as experiments on *negative reinforcement*. Accordingly, assuming Sidman's (1989) approach would demand a broad reassessment on the findings of much of the empirical research on positive reinforcement.

A third problem with Sidman's approach to coercion involves more specifically his assertion that *only* positive reinforcement is outside the scope of coercion. This logic depends on the assumption that the distinction between positive and negative reinforcement is indisputable, which is not the case. As Michael (1975) suggested, "adding a stimulus requires its previous absence and removing a stimulus its previous presence" (p. 85), and the presence of a given stimulus inevitably imposes the absence of its opposite. For instance, the presence of sound implies the absence of silence. So, when setting up a procedure to present a given sound, which is more relevant: the sound to be added or the silence to be interrupted? Puzzling questions like this one are direct results of the arbitrary distinction between adding and removing stimuli. That would be the reason why, Michael (1975) argued, "the distinction between two types of reinforcement, based in turn upon the distinction between presentation and removal simply can be dropped" (p. 43).

Thirty years later, and after reviewing the data and looking for other possible criteria that could justify the standard positive/ negative distinction (e.g., possible differences in strengthening effects, underlying physiology, "feelings" of reinforcement and the establishing operations producing them etc.), Baron and Galizio (2005) were led to the same conclusion as that of Michael (1975). Notwithstanding, the issue is far from being settled: not all behavior analysts agreed with Michael's (1975) analysis, and the positive/ negative distinction remains common in the scientific literature – see the diversity of viewpoints on this in Chase (2006), Iwata (2006), Lattal and Lattal, (2006), Marr (2006), Sidman (2006), Staats (2006), among others. Although Michael's (1975) viewpoint is *not* consensually accepted by behavior analysts, it certainly points to a relevant conceptual weakness: the valence distinction – from which the "positive" in "positive reinforcement" depends – should not be taken for granted.

A fourth problem is partly derived from the valence debate. In a review on the meaning of aversive control in behavior analysis, Hunziker (2018) concluded that ". . . there is no objective criterion for a given operant relation to be classified as aversive" (p. 195). That is, the "aversiveness" of the so-called aversive relations (i.e., negative reinforcement, negative punishment, and positive punishment) cannot be attributed to any objective criteria that enable grouping them all together[2].

More specifically, Hunziker (2018) considered three criteria: *effect*, *operation* and the *kind of stimuli* involved in each relation. Considering the behavioral *effect,* whereas negative reinforcement *increases* the frequency of responding, punishment (both positive and negative) *decreases* it. Considering the *operation*, whereas positive punishment demands the *addition* of stimuli, negative punishment and negative reinforcement demands *removal* of stimuli. Considering the *kind of stimulus* involved, whereas negative reinforcement and positive punishment involve stimuli deemed "aversive", negative punishment involves stimuli deemed "appetitive."

In short, there seems to be not one single factor that enable grouping together all the three types of "aversive" relations. Without an objective criterion to characterize aversiveness as such, it does not make sense to try fitting all those relations under the same expression (i.e., aversive control). And since Sidman's definition of coercion identifies it with the relations traditionally deemed aversive, it may be assessed by the same rationale. The logical conclusion, then, is that there are no objective criteria by which a given operant relation can be classified as coercive.

There is yet a fifth objection to Sidman's (1989) approach to coercion. His main claims against the *use* of aversive procedures already have been challenged by the results of numerous experiments conducted with both humans and nonhuman animals. For example, the claim that the suppressive effect of punishment is only temporary (Sidman, 1989) is disputable, with relevant data suggesting otherwise (e.g., Appel, 1963; Azrin, 1960; Azrin et al., 1963; Boe & Church, 1967; Hake et al., 1967; Herman & Azrin, 1964; Holz et al., 1963; Storms et al., 1962; among others). Apparently, this statement was originally made by Skinner (1938, Experiment II), as he showed that the suppressive effect of punishment was not enduring when punishment followed the first few responses following the onset of extinction. Rats receiving or not receiving such punishment showed an equal total amount of responses by the end of two sessions.

These results were contested by Boe and Church (1967), who pointed out methodological flaws in the original research. When they replicated Skinner's procedures with greater experimental control and strict manipulation of

[2] There are two ways of defining punishment (Holth, 2005): as a primary process, i.e., reducing of the probability of the punished response is a direct effect of the punishment procedure (Azrin & Holz, 1966); or as a secondary process, i.e., reducing of the probability of the punished response is an indirect effect of increasing the probability of responses that avoid punishment, that is, avoidance responses (Dinsmoor, 1954). The analysis presented here adopts the currently prevalent conception of punishment as primary process (Catania, 2017; Lerman & Vorndran, 2002).

variables, there was an enduring effect of punishment. Aditionally, Azrin and Holz (1966) summarized several experiments in which the same response was punished and intermittently reinforced, demonstrating that long-term effects of punishment depended on several variables, such as the relation between the magnitude of the positive reinforcer and that of the aversive stimuli, the immediate or delayed presentation of the aversive stimuli, and the availability of alternative responses to obtain positive reinforcers.

The claim that aversive control necessarily generates undesirable side effects (Sidman, 1958, 1977, 1989) that may make difficult an individual's adaptation to his environment also has been contested by experimental data. Not only in applied settings, where the need to resort to aversive control to assure clients' well-being has been verified (Lernan & Vorndran, 2002), but also in laboratory experiments, several studies have endorsed the utility of punishing noncooperative behavior to establish good levels of cooperation between group members (Fehr, & Gächter, 2000; Sefton et al., 2007). These data support the argument of Critchfield (2014) that "[p]unishment, rather than being one of society's great ills . . . might sometimes function as an essential adhesive that helps to hold society together" (p. 42).

A sixth and final point to be raised in response to Sidman's (1989) analysis of coercion concerns an unexpected effect of positive reinforcement. Results of several experiments suggest that, contrary to Sidman's assumptions, positive reinforcement contingencies may exhibit aversive functions. This can be seen, for example, in experiments on aggression induced by positive reinforcement (Kupfer et al., 2003; Richards & Rilling 1972), self-imposed time-out of positive reinforcement (Azrin, 1961; Lydersen, 1997), as well as in the relativity of the reinforcing or aversive function of a given schedule of reinforcement depending on the available alternatives (Everly et al., 2014; Retzlaff et al., 2017).

Considering the wide range of studies mentioned in this section, equating coercion and operations classified as "aversive" does not seem justified. Even if, for the sake of argument, one is to accept the fragile, traditional concept of aversive control, the idea of an environment completely free from aversiveness remains doubtful. As Hineline (1983) observed, ". . . the study of aversive control should not be viewed as the examination of phenomena peculiar to that area, but rather as the examination of processes possibly common to all behavior" (p. 506). If aversiveness is to be considered an inherent part of behavioral relations, and if it is treated as a synonym for coercion, then abolishing coercion – as defended by Sidman (1989) – would simply not be an option.

Moreover, in dealing with phenomena commonly regarded as coercive, it may be important to examine the negative effects of positive reinforcement (Perone, 2003). In this case, one may consider favoring an approach focused on the *outcomes* rather than on the *procedures* of different kinds of control:

> . . . it is impossible to construct a behavioral system free of aversive control. The forms of behavioral control we call "positive" and "negative" are inextricably linked. Thus, decisions about "good" and "bad" methods of control must be decided quite apart from the questions of whether the methods meet the technical specification of "positive reinforcement" or "aversive" control. We need to seek a higher standard, one that emphasizes outcomes more than procedures. *Our chief concern should not be whether the contingencies involve the processes of positive reinforcement, negative reinforcement, or punishment. Instead, we should emphasize the ability of the contingencies to foster behavior in the long-term interest of the individual*. Of course, this is all we can ask of any behavioral intervention, regardless of its classification. (Perone, 2003, p. 13, italics added)

In sum, either because of conceptual problems or the failure of experimental analyses to support some of its claims, Sidman's (1989) approach to coercion is questionable for several reasons: 1) it encompasses a redundancy within itself; 2) it implies theoretical problems with its interpretation about imposed deprivation; 3) it depends on the arbitrary, already questioned distinction between positive and negative reinforcement; 4) it does not provide any objective criteria that could enable grouping aversive relations altogether; 5) it encompasses assumptions empirically disproved about effects and limitations of aversive contingencies; and 6) it does not make place for explaining supposedly aversive[3] factors in contingencies of positive reinforcement.

Despite all these problems, though, Sidman's concern about the need for assessing coercive phenomena remains important. But how to address social issues such as those addressed in *Coercion and its fallout* without Sidman's original concept of coercion?

An alternative approach to coercion in behavior analysis

[3] Even though recognizing that the definition of aversive control remains uncertain, we maintained the use of the expression throughout the text in its ordinary meaning (that is, by reference to contingencies of punishment and negative reinforcement), that is, as it became common in the literature.

Considering the problems described above that are inherent to Sidman's approach to coercion, we now turn to the question of how one might conceptualize coercion without resorting to the notion of aversive control as touchstone. The work of Goldiamond (1976) might prove to be a viable alternative: he observed that coercion ". . . may be defined as most severe when there are no genuine choices, and the consequences contingent on behavior are critical" (p. 23). An implication of this approach is that coercion is always a matter of degree, as is its opposite – freedom.

Unlike Sidman's, Goldiamond's approach allows coercion to be conceptualized without mention of the "aversiveness" of control: the analysis of coercion is instead assessed relatively to the choices available to the behaving individual. The greater the coercion, the fewer the number of alternatives from which to choose. This also means that freedom – the opposite of coercion – is an increasing function of the number of choices there are. Even though one could argue that Sidman's (1989) approach could also encompass a "gradualist" perspective to coercion (e.g., coercion being greater or lower as aversive stimulation is more or less intense), the *criteria* for identifying coercion remain distinct in each approach: by identification with aversive control in Sidman's *versus* by the availability of choices in Goldiamond's.

More specifically, from Goldiamond's (1976) perspective, freedom, the antithesis to coercion, is understood as the possibility of exerting *genuine* choices. But what would ensure such *genuineness*? For Goldiamond (1976), the genuineness of choices depends on the conjunction of several factors, such as: 1) the relative probability of such choices to provide access to *critical consequences*, that is, consequences that are vital for an individual's wellbeing; 2) the individual's *behavioral repertoire* must comprises the skills required for him to adequately respond in order to achieve the critical consequences; and 3) the existence of *available opportunities* in the context for the behaving individuals to exert their choices.

This is a crucial aspect of Goldiamond's approach, since the neglect to consider whether or not a choice is genuine may lead to the conclusion that a greater number of alternatives to choose from invariably leads to greater freedom, which is *not necessarily* true. In other words, although necessary, availability of alternatives is not a sufficient condition for freedom. The more alternatives of action available to choose from, the greater the degree of freedom, *provided these choices are genuine*. In their assessment on Goldiamond's approach to freedom and coercion, de Fernandes and Dittrich (2018) elucidate the point:

> If in a given social context working at the mine is the only alternative that allows access to a critical consequence (e.g., survival) — otherwise one would simply 'starve'— then df = 0 [degree of freedom equals zero] in relation to available jobs. There are no degrees of freedom and, as a result, it is possible to say that working at the mine was not a free choice. If, however, there are the options of working at a farm or at an industry in addition to working at the mine, then df = 2. In the latter case, only one class of behavior is emitted (i.e., 'chosen'), such as 'working at the mine,' but the availability of two alternatives sets a higher degree of freedom. In sum, n different contingencies minus one define the degree of behavioral freedom in a given condition of choice . . . We have, then, a relationship of inverse proportion: the greater the number of behavioral alternatives, the greater is the degree of freedom and, therefore, the lower is the degree of coercion. (p. 11)

That way, shifting the focus from the identification with aversive control to an analysis concerning the possibility of genuine choices, behaviorists may address the matter of coercion without depending on the uncertain notion of aversive control. Furthermore, assuming that ". . . the issue is never coercion versus no coercion . . . the issue is the amount and type of coercion we are willing to accept, and the protections against abuse we set up" (Goldiamond, 1976, p. 23), behavior analysts may better acknowledge the ubiquity, inevitability of coercion in society at large, therefore putting forward more pragmatic and less utopian projects to social change.

Perhaps it may be the case not to constrain, but to expand the possible meanings of coercion in behavior analysis. Such an approach was recently suggested by Goltz (2020), as she outlined different possible meanings for coercion from a behavior-analytic viewpoint, Sidman's and Goldiamond's among them. In addition, Goltz (2020) recommended that behavior analysts must also consider that ". . . coercion occurs when the environment is designed in order to encourage certain choices without the individual's prior consent" (p. 16).

Among the meanings of coercion considered by Goltz's (2020), only Sidman's depended on the concept aversive control. Both Goldiamond's (1976) and Goltz's (2020) definitions focused on the absence or restraining of choice as the touchstone for characterizing coercion. It must be noted, however, that Goltz's (2020) definition appears to refer to a less functional, more formal concept of choice. While resorting to the idea of *consent* as a criterion for characterizing coercive relations, Goltz's (2020) proposal – even though presenting itself as behavior-analytic – could perhaps allow a reasoning based on the notion of personal agency, which would be odd for behavior-analytic viewpoint.

Although still in need of further refinements, the work of Goldiamond (1976), along with the outline recently proposed by Goltz (2020), represent alternative, worth-considering approaches to coercion. In particular, Goldiamond's (1976) approach introduces a comprehensive, parsimonious way do address coercive phenomena, since it assumes coercion may exist in different kinds of procedures, which may include positive reinforcement. Thence, when talking about coercive phenomena, behavior analysts could at least consider resorting to references aside from Sidman's *Coercion and its fallout*, critically presenting the issue of coercion and exploring the variety of ways it could be addressed.

Final remarks

Sidman's contributions to behavior analysis are undeniable. As taught by himself (Sidman, 1960), though, they are not unquestionable – as no set of scientific statements ever could be. Several conceptual and empirical studies illustrate that his analysis of coercion has not been unchallenged. These analyses invite continuing assessment of his ideas about coercion. The worst way to honor Sidman's legacy would be to turn it into a doctrine immune to critical scrutiny. Indeed, Sidman himself would probably reject such orthodoxy. In a note about the self-correcting, ever-evolving character of science, he wrote:

> One consistent lesson of science is that the solutions to experimental or theoretical problems often demand the sloughing off of conventional ways of thinking. Those scientists who persistently question traditional formulations and orthodox approaches are displaying the effects of a history of reinforcement for behavioral variability. They have found that when old responses do not work, new ones must be tried. (Sidman, 1960, p. 205)

From theoretical questionings on the (non)definition of aversive control to empirical findings on the fallouts of "aversive" contingencies, behavior analysts have increased their knowledge to a point from which a reassessment of Sidman's (1989) approach became mandatory. Thus, as much as it is important for behavior analysts to address coercive phenomena, they should not uncritically retreat to an approach already challenged, both conceptually and empirically. This is not to say that the issue of defining coercion is settled: on the contrary, the argument is that the grounds of the standard behaviorist interpretation of coercion are so wavering that the pursuit of alternative approaches on the issue is required. One possible path would be shifting the focus from the procedures that supposedly characterize coercive practices to issues like the practical outcomes of such practices – such as restricting genuine choices.

It seems particularly important to detach the term *coercion* – which is commonly and constantly associated with oppression and abuse of power in its ordinary meaning – from merely operational, technical terms and expressions like punishment and negative reinforcement. As previously argued, these procedures can be relatively suitable for the adaptation of individuals to their environment, as well as to their physical and social well-being. To associate them with oppression and abuse of power means neglecting well-established scientific data about these relations, which are, recalling Hineline's (1983) observation, ". . . possibly common to all behavior" (p. 506).

The concerns raised by Sidman (1989) about the pervasiveness of coercive practices are legitimate and important – despite the limitations of his particular analysis of coercion. To drop that analysis by no means implies dropping the quest for freedom and social justice, that is, pursuing the goal of a less coercive society. Further developments of behavior analysis will show how coercive phenomena may be more properly defined, addressed, and countered. The present analysis hopefully is a step in that direction, a direction that helps that the practices of behavior analysts adequately match their science's findings. This is the best tribute the discipline could pay to Sidman's legacy.

Declaração de conflito de interesses

The authors declare that there is no conflict of interest regarding the publication of this article

Contribuição de cada autor

We certify that all authors have participated sufficiently in the work to make their responsibility for the content public. Each author's contribution can be attributed as follows: both authors contributed to the writing of all parts, having C. A. A. Rocha written the preliminary version and M. H. L. Hunziker contributed to improve conceptual aspects and the argumentative approach.

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